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ART UNIT	**PAPER NUMBER**
3679	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/598,602	DORNEY ET AL.	
	Examiner	Art Unit	
	MICHAEL P. FERGUSON	3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-20,23,25-29 and 32* is/are pending in the application.

4a) Of the above claim(s) *23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-20,25-29 and 32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/05/06,11/09/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species 1, Figures 4-8, claims 1-7, 9-20, 25-29 and 32, in the reply filed on October 2, 2009 is acknowledged.

2. Claim 23 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 2, 2009.

Claim Objections

3. Claim 16 is objected to because of the following informalities:

Claim 16 (line 1) recites "claim 14". It should recite --claim 15--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-7, 9-20, 25-29 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 (lines 1-14) recites "A self-aligning coupling device fro installation in a channel… the device comprising… the channel abutment portion being formed such that when aligned in a first angular position with the channel it abuts at least one said side wall of the channel... the lug being formed such that in said

first angular position it extends beyond at least one of the side wall of the channel". It is unclear as to whether the channel has been positively claimed as an element of the coupling device, or whether such channel has only been recited as intended use. Accordingly, one is unable to properly determine the metes and bounds of such claim. Claims 2-7, 9-20, 25-29 and 32 depend from claim 1 and are likewise rejected as being indefinite.

Claim 6 recites "wherein the thread is formed such that torque is applied to the coupling device due to friction between the thread of the elongate connecting portion and the cooperative thread of the adjustment member". Claim 5, from which claim 6 depends, recites "wherein the elongate connecting portion comprises a cylindrical portion having a thread formed thereon for screw thread engagement with a cooperatively threaded adjustment member". It is unclear as to whether the threaded adjustment member has been positively claimed as an element of the coupling device, or whether such adjustment member has only been recited as intended use. Accordingly, one is unable to properly determine the metes and bounds of such claim.

Claim 20 (lines 2-4) recites "comprising at least one nib for engagement with a corresponding recess in an adjustable engagement assembly, the nib and recess being arranged such that when engaged the coupling device is retained in an angular position". It is unclear as to whether the recess in the adjustable engagement assembly has been positively claimed as an element of the coupling device, or whether such recess has only been recited as intended use.

Accordingly, one is unable to properly determine the metes and bounds of such claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-7 and 9-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Gogarty (US 5,199,836).

As to claim 1, Gogarty discloses a self-aligning coupling device **12,68** for installation in a channel **18** having an open end and a pair of substantially parallel side walls, the device including:

an elongate connecting portion **74** having a longitudinal axis;

a channel abutment portion **72,50**; and

at least one laterally projecting lug **70,24**,

arranged such that in use the coupling device may be installed in the channel with the channel abutment portion located at least partially within the channel and the laterally projecting lug located outside the open end of the channel,

the channel abutment portion being formed such that when aligned in a first angular position within the channel it abuts at least one the side wall of the channel to prevent rotation of the device in a first rotational direction about the

longitudinal axis, while allowing rotation in a second, opposed, rotational direction, and

the lug being formed such that in the first angular position it extends beyond at least one of the side walls of the channel, whereby when the coupling device is retracted into the channel while simultaneously applying a torque to rotate the device in the first rotational direction towards the first angular position, the channel abutment portion will abut the side walls of the channel thereby aligning the lug to extend beyond at least one of the side walls of the channel to prevent the coupling device from being fully retracted into the channel (Figures 3-12).

As to claim 2, Gogarty discloses a device which includes two opposing laterally projecting lugs **70,24** formed to extend beyond both side walls of the channel **18** when the coupling device is aligned in the channel in the first angular position (Figures 6-8).

As to claim 3, Gogarty discloses a device wherein the lug or lugs **70,24** are formed so that when they are aligned substantially parallel with the side walls of the channel **18** they are able to fit therebetween such that the coupling device is able to slide freely within the channel (Figures 6-8).

As to claim 4, Gogarty discloses a device wherein the channel abutment portion **72,50** is formed such that when the lug or lugs **70,24** are aligned substantially parallel to the side walls of the channel **18** the channel abutment portion is aligned within the channel in a second angular position at which it abuts the side walls of the channel to prevent rotation of the device in the second

rotational direction about the longitudinal axis, while allowing rotation in the first rotational direction (Figures 6-8).

As to claim 5, Gogarty discloses a device wherein the elongate connecting portion **74** includes a cylindrical portion having a thread formed thereon for screw thread engagement with a cooperatively threaded adjustment member **92** (Figure 11).

As to claim 6, Gogarty discloses a device wherein the thread is formed such that torque is applied to the coupling device due to friction between the thread of the elongate connecting portion **74** and the cooperative thread of the adjustment member **92** (Figure 11).

As to claim 7, Gogarty discloses a device wherein the thread formed on the elongate connecting portion **74** is manufactured so as to be a snug fit with the cooperatively threaded adjustment member **92** such that friction is increased therebetween (Figure 11).

As to claim 9, Gogarty discloses a device including two lugs **70,24** integrally formed at an end thereof to form a head portion **70** having a substantially rectangular cross section (Figure 11).

As to claim 10, Gogarty discloses a device wherein the dimension of the rectangular cross section of the head portion **70** along a major axis thereof is greater than the channel width such that when located outside the open end of the channel **18** with the major access perpendicular to the channel walls, corresponding with the first angular position, the lugs **70,24** prevent the device from being fully retracted into the channel (Figures 6-8).

As to claim 11, Gogarty discloses a device wherein a dimension of the rectangular cross section of the head portion **70** along a minor axis thereof is less than the channel width to enable the head portion to fit between the side walls of the channel **18** when aligned with the minor axis perpendicular to the channel walls, corresponding to the second angular position (Figures 6-8).

As to claim 12, Gogarty discloses a device wherein the substantially rectangular cross section of the head portion **70** includes rounded portions **46** at corners thereof to prevent corresponding edges of the head portion catching on the surface of an object in which the channel **18** is formed, when rotating between the first and second angular positions (Figures 6-8).

As to claim 13, Gogarty discloses a coupling device wherein one or more edges and corners **46** located at the end of the head portion **70** are rounded or smoothed to ensure there are no angular corners or edges that may catch on a surface of an object in which the channel **18** is formed when the device slides within the channel (Figures 6-8).

As to claim 14, Gogarty discloses a device wherein the head portion **70** includes surfaces formed to bear against corresponding surfaces adjacent to the open end of the channel **18** (Figure 11).

As to claim 15, Gogarty discloses a device wherein the channel abutment portion **72,50** includes two pairs of flat surfaces **64,65**, each pair of surfaces meeting at an edge therebetween and the pairs being substantially opposed to each other relative to the longitudinal axis of the coupling device (Figures 6-11).

As to claim 16, Gogarty discloses a device wherein each of the pair of surfaces **64,65** meet at right angles and are arranged such that in each of the first and second angular positions one of each of the pairs of surfaces bears against a respective side wall of the channel **18** (Figures 6-8).

As to claim 17, Gogarty discloses a device comprising two lugs **70,24** integrally formed at an end thereof to form a head portion **70** having a substantially rectangular cross section,

wherein the channel abutment portion **72,50** comprises two pairs of flat surfaces **64,65**, each pair of surfaces meeting at an edge therebetween and the pairs being substantially opposed to each other relative to the longitudinal axis of the coupling device, and

wherein the pairs of surfaces are opposed along an axis oriented at 45 degrees to the major and minor axes of the rectangular cross section of the head portion of the coupling device (Figures 6-11).

As to claim 18, Gogarty discloses a device wherein the channel abutment portion **50,72** is tapered **54**, such that a width thereof proximate to the head portion **70** is greater than a width proximate to the connecting portion **74** (Figure 1).

As to claim 19, Gogarty discloses a device wherein the channel abutment portion **72,50** is formed integrally with the head portion **70**, such that one of each of the pairs of surfaces **64,65** is continuous with a corresponding surface of the head portion located on a side parallel to the major axis of the substantially rectangular cross section (Figures 6-11).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gogarty in view of Popovski (US 6,764,245).

As to claim 25, Gogarty fails to disclose an adjustable clamp assembly including an adjustable engagement assembly operatively engaged with the coupling device such that an adjustment of the engagement assembly results in a translation of the coupling device along the longitudinal axis while simultaneously applying a torque to the coupling device about the longitudinal axis.

Popovski discloses an adjustable clamp assembly including a coupling device **88** similar to the coupling device disclosed by Gogarty, and comprising an adjustable engagement assembly **50** operatively engaged with the coupling device such that an adjustment of the engagement assembly results in a translation of the coupling device along the longitudinal axis while simultaneously applying a torque to the coupling device about the longitudinal axis (Figures 3-8).

It would have been obvious to use the coupling device disclosed by Gogarty within the clamp assembly taught by Popovski as the two coupling devices are structural equivalents within the art.

As to claim 26, Popovski discloses a clamp assembly wherein an elongate connecting portion **64** of the coupling device **88** includes a cylindrical portion having a thread formed thereon, and the adjustable engagement assembly **50** includes a cooperatively threaded adjustment member,

whereby in use the adjustment member is in screw thread engagement with the elongate connecting portion, such that a rotation of the adjustment member results in translation of the coupling device along the longitudinal axis while simultaneously applying a torque to the coupling device about the longitudinal axis (Figures 3-8).

As to claim 27, Popovski discloses a clamp assembly wherein the application of torque results from friction between the thread of the elongate connecting portion **64** and the cooperative thread of the adjustment member **50** (Figures 3-8).

As to claim 28, Popovski discloses a clamp assembly wherein the adjustable engagement assembly **50** includes:

a first gear member **P2** having centrally a first axis of rotation; and

a second gear member **P1** having centrally a second axis of rotation substantially perpendicular to the first axis and being cooperatively engaged with the first gear member such that rotation of the first gear member about the first axis results in rotation of the second gear member about the second axis,

wherein the second gear member includes an internally-threaded central rotatable sleeve member forming the cooperatively threaded adjustment member (Figures 7-8).

As to claim 29, Popovski discloses a clamp assembly wherein the first and second gear members **P2,P1** include bevel gear members, and the adjustable engagement assembly further includes a housing **20** formed to retain therein the first and second bevel gear members in cooperative engagement with one another, the housing having at least one external surface that, in use, abuts a corresponding surface of an object to be clamped so as to function as a clamp member of the adjustable clamp assembly (Figures 3-8).

Allowable Subject Matter

10. Claims 20 and 32 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

As to claim 20, Gogarty discloses the claimed coupling device with the exception of comprising at least one nib for engagement with a corresponding recess in an adjustable engagement assembly, the nib and recess being arranged such that when engaged the coupling device is retained in an angular position relative to the engagement assembly suitable to enable the complete clamping assembly formed thereby to be inserted into a corresponding recess or cavity in an object to be clamped with the coupling device oriented in the second angular position within a channel of the recess or cavity.

As to claim 32, Gogarty in view of Popovski discloses the claimed clamp assembly with the exception of wherein the self-aligning coupling device includes

at least one nib and the adjustable engagement assembly includes a corresponding recess, the nib and recess being arranged such that when engaged the coupling device is retained in an angular position relative to the engagement assembly suitable to enable the clamping assembly to be inserted into a corresponding recess or cavity in an object to be clamped with the coupling device oriented in the second angular position within a channel of the recess or cavity.

There is no teaching or suggestion, absent the applicants' own disclosure, to modify the coupling device disclosed by Gogarty to have the above mentioned elemental features. Furthermore, such modifications would yield unexpected and unpredictable results.

Conclusion

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patents show the state of the art with respect to coupling devices:

Waterfield et al. (US 5,076,748), Linger (US 6,733,221), Managold (US 5,934,819) and Mattarelli (US 5,647,174) are cited for pertaining to devices comprising a channel abutment portion and an elongate connecting portion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL P. FERGUSON whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (6:30am-3:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MPF
11/06/09

/Michael P. Ferguson/
Primary Examiner, Art Unit 3679